

CLAIMS

What is claimed is:

1. An apparatus comprising:
 - 5 an input power port;
 - a power rail;
 - a battery unit; and
 - a system charger voltage regulator (VR) to couple the input power port to the battery unit, and said battery unit to couple with the system charger VR and the
 - 10 power rail.
2. The apparatus of claim 1 wherein said system charger VR is to provide a regulated voltage signal when a power source is coupled to the input power port, said regulated voltage signal to simultaneously power both the power rail and the
- 15 battery unit.
3. The apparatus of claim 2 wherein said battery unit is to provide a battery voltage signal to power the power rail when no power source is coupled to the input power port.
- 20 4. The apparatus of claim 3 wherein the regulated voltage signal and the battery voltage signal have a common upper bound and a common lower bound.
5. The apparatus of claim 2 wherein the power source comprises a voltage from
- 25 one of an AC/DC converter, an external battery, a fuel cell, a solar panel, and power over local area network.
6. The apparatus of claim 1 wherein the battery unit comprises:
 - a battery pack port to couple to the system charger VR and to receive a
 - 30 battery pack; and

a power source selector to selectively couple either the system charger VR to the power rail or the battery pack port to the power rail.

7. The apparatus of claim 6 wherein the system charger VR is to power the battery
5 pack port to recharge a discharged battery coupled to the battery pack port.

8. The apparatus of claim 1 wherein the battery unit comprises:

a plurality of battery pack ports, each of the plurality of battery pack ports to couple to the system charger VR and to receive a battery pack; and

10 a power source selector to selectively couple any one of the system charger VR and the plurality of battery pack ports to the power rail.

9. The apparatus of claim 8 wherein the battery unit further comprises:

15 a battery charging selector to couple between the system charger VR and each of the plurality of battery pack ports, said battery charging selector to selectively couple any one of the plurality of battery pack ports to the system charger VR.

10. The apparatus of claim 1 wherein the power rail extends beyond the battery unit
20 to couple the system charger VR to the battery unit

11. The apparatus of claim 10 wherein the battery unit comprises:

a battery pack port to receive a battery pack.

25 12. The apparatus of claim 11 wherein the battery unit further comprises:

a switch to selectively couple the battery pack port to the power rail.

13. The apparatus of claim 12 wherein, if the battery pack is coupled to the battery pack port, said switch is to couple the battery pack port to the power rail for either
30 powering the power rail or charging the battery pack.

14. The apparatus of claim 11 wherein the battery pack comprises:

a switch control port to receive a switch control signal from the battery pack port;

a battery stack; and

5 a switch to selectively couple the battery stack to the battery pack port based at least in part on the switch control signal.

15. The apparatus of claim 10 wherein the battery unit comprises:

a plurality of battery pack ports, each to receive a battery pack.

10

16. A method comprising:

generating a regulated voltage signal when a power source is available;

providing the regulated voltage signal to simultaneously power both a power

15 rail and a battery unit; and

providing a battery voltage signal to power the power rail when no power source is available.

17. The method of claim 16 wherein the regulated voltage signal and the battery

20 voltage signal have a common upper bound and a common lower bound.

18. The method of claim 16 wherein the power source comprises a voltage from one of an AC/DC converter, an external battery, a fuel cell, a solar panel, and power over a local area network.

25

19. The method of claim 16 wherein providing the regulated voltage signal to power the battery unit comprises:

recharging a discharged battery in the battery unit.

30

20. A system comprising:

a mobile computer; and

a power apparatus for the mobile computer, said power apparatus comprising

an input power port;

5 a power rail;

a battery unit; and

a system charger voltage regulator (VR) to couple the input power port to the battery unit, and said battery unit to couple with the system charger VR and the power rail.

10

21. The system of claim 20 wherein said system charger VR is to provide a regulated voltage signal when a power source is coupled to the input power port, said regulated voltage signal to simultaneously power both the power rail and the battery unit.

15

22. The system of claim 21 wherein said battery unit is to provide a battery voltage signal to power the power rail when no power source is coupled to the input power port.

20

23. The system of claim 22 wherein the regulated voltage signal and the battery voltage signal have a common upper bound and a common lower bound.

24. The system of claim 20 wherein the battery unit comprises:

a battery pack port to couple to the system charger VR and to receive a

25 battery pack; and

a power source selector to selectively couple either the system charger VR to the power rail or the battery pack port to the power rail.

25. The system of claim 20 wherein the battery unit comprises:

30

a plurality of battery pack ports, each of the plurality of battery pack ports to couple to the system charger VR and to receive a battery pack; and

a power source selector to selectively couple any one of the system charger VR and the plurality of battery pack ports to the power rail.

26. The system of claim 25 wherein the battery unit further comprises:

5 a battery charging selector to couple between the system charger VR and each of the plurality of battery pack ports, said battery charging selector to selectively couple any one of the plurality of battery pack ports to the system charger VR.

10 27. The system of claim 20 wherein the power rail extends beyond the battery unit to couple the system charger VR to the battery unit

28. The system of claim 27 wherein the battery unit comprises:

a battery pack port to receive a battery pack.

15

29. The system of claim 28 wherein the battery pack port comprises:

a switch to selectively couple the battery pack port to the power rail wherein, if the battery pack is coupled to the battery pack port, said switch is to couple the battery pack port to the power rail for either powering the power rail or charging the battery pack.

20

30. The system of claim 28 wherein the battery pack comprises:

a switch control port to receive a switch control signal from the battery pack port;

25

a battery stack; and

a switch to selectively couple the battery stack to the battery pack port based at least in part on the switch control signal.

31. The system of claim 27 wherein the battery unit comprises:

30

a plurality of battery pack ports, each to receive a battery pack.